



US Army Corps
of Engineers®

SAN FRANCISCO DISTRICT

Regulatory Branch
1455 Market Street
San Francisco, CA 94103-1398

PUBLIC NOTICE

NUMBER: 27349N

DATE: March 27, 2007

RESPONSE REQUIRED BY: April 26, 2007

PROJECT MANAGER: Bryan Matsumoto PHONE: 415-503-6786

Email: Bryan.T.Matsumoto@usace.army.mil

1. INTRODUCTION: The National Park Service (NPS), Golden Gate National Recreational Area, Building 201, Fort Mason, San Francisco, California 94123, (POC: Carolyn Shoulders, 415-331-0771), has applied for a United States Army Corps of Engineers (Corps) permit to complete the wetland and creek restoration project at Big Lagoon, Muir Beach, Marin County, California. This project includes creek and wetland creation/restoration, modifications to existing public facilities, bridge construction, and other associated activities. This application is being processed pursuant to the provisions of Section 404 of the Clean Water Act (33 U.S.C. Section 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403).

2. PROPOSED PROJECT:

Project Site: As stated above, the project is located at Big Lagoon, Muir Beach, Marin County, California. The project site covers approximately 38.8 coastal acres at Muir Beach, where Redwood Creek drains into the Pacific Ocean (Figure 1). Included in the project area is Muir Beach, Big Lagoon, and the entire wetland/upland and creek area extending from just downstream of the Highway 1 bridge.

The project site generally drains to the south into the Pacific Ocean, and is part of a coastal complex of fluvial, wetland, riparian, and dune systems at the lowest elevation of an 8.9-square mile watershed of Redwood Creek, which flows from the south face of Mount Tamalpais through

Muir Woods National Monument to its mouth at Muir Beach. In addition, there are two tributaries of Green Gulch that eventually flow into Redwood Creek. There are approximately 26.5 acres of jurisdictional wetlands and approximately 2.6 acres of jurisdictional other waters on the project site (Figure 2). Jurisdictional wetlands on site are generally characterized by the presence of pepper grass (*Lepidium latifolium*), cattails (*Typha* sp.), penny royal (*Mentha pulegium*), curly dock (*Rumex crispus*), and water cress (*Rorippa* sp.).

Project Description (Figures 5-8):

Channel Modifications: As shown on the attached drawings, the applicant plans to relocate approximately 2,500 linear feet of creek channel to the topographically lowest location. This will occur in two segments, one in the upper half of the project area about 1,800 linear feet, and downstream of the parking lot through Big Lagoon. The main channel will be excavated to approximately 35 feet wide and about 5 feet deep with the installation of log structures and rock gabions to encourage development of natural habitat features. Low berms will be constructed near the edge of the channels to re-create the natural depositional levees. The existing 1,300-foot levee that confines the creek floodplain will be removed completely along with the two culverts located in it. A portion of that levee will be excavated to function as a backwater.

Emergent Wetlands for California Red-Legged Frog: Two ponds will be excavated on the east side

of the project site in the Green Gulch pasture and south of it. They will be excavated deep enough to be sustained by groundwater and support emergent wetland totaling 1.58 acres.

Actions in Green Gulch Pasture: Concrete lining in the southern Green Gulch tributary will be removed in the project area and two drainages will be slightly rerouted and reconnected to Redwood Creek channel at a single location. This work will require the filling of a portion of the northern Green Gulch tributary. Fill may be required to upgrade a crossing over the southern Green Gulch tributary for project access. In addition, a new drainage swale will be constructed downstream of Pacific Way in the pasture between the realigned creek and the eastern project boundary. The swale would flow into one of the new ponds then connect to the realigned Green Gulch tributary. The Green Gulch pasture currently houses several horses and a horse shelter, which will be relocated outside of the project area.

Expansion of Big Lagoon and enhancement of adjacent wetlands: Big Lagoon, an intermittent tidal lagoon, will be enlarged through the excavation of the landward side of the feature. This will increase the size of the lagoon up to 0.46 acre. In addition, material north of the lagoon will be excavated to encourage native wetland vegetation to colonize, and remnants of a non-historic tavern will be removed to enhance surrounding wetland areas.

Reconfigured parking lot and picnic area: The existing visitor parking lot and the picnic area at the south end of the lot will be removed to expand the floodplain area. The new parking area will remain the same size as the existing one, however, it will extend further north into the riparian habitat by 50-60 feet, while the new picnic area will be 75 percent of the size of the current picnic area.

Beach access from Highway 1: Construction of a new pedestrian trail along Pacific Way from Highway 1 to the parking lot would be constructed over the current existing Redwood Creek alignment.

The trail would provide multi-use access. In addition, a new pedestrian boardwalk and bridge crossing of the creek will replace the existing structures. The Pacific Way bridge will be replaced with a clear span bridge that will accommodate pedestrians. The bridge will span not only the creek, but the adjacent flood plain.

Other construction actions: To relocate the channel and construct the new bridge, several utility poles supporting PG&E and AT&T service lines and 2 utility boxes and their fill pads near Pacific Way will be relocated. Three poles may be replaced with underground lines which will be located beneath Pacific Way.

Interim flood reduction measures: If required, interim flood reductions measures will be implemented to prevent localized flooding in the area. Measures may include; excavation of the channel up to 400 feet upstream of the Pacific Way bridge to as far as 100 feet downstream, remove sediment upstream and downstream of the bridge, or remove log jams upstream if they appear to be obstructing flood flows.

Temporary construction impacts: During construction of the project there will be numerous temporary impacts which include; construction of a temporary by-pass road adjacent to Pacific way, construction of haul roads for wetland construction, and dewatering when working in the live channel.

Purpose and Need: The basic project purpose is to restore a functional, self-sustaining ecosystem, including wetland, riparian, and other aquatic components and to conduct the restoration in a manner that will re-create habitat for sustainable populations of special-status species, reduce flooding on Pacific Way, and provide visitor access that is compatible with ecosystem function.

The applicant states that the project is needed due to an extensive loss of natural creek and wetland function, diminished habitat for federally listed coho salmon and steelhead trout, increased flooding on Pacific Way that impedes access to

homes and public recreation, and unsustainable habitat conditions for the federally threatened California red-legged frog.

Impacts: The project would result in the permanent loss of 0.75 acre of jurisdictional waters of the U.S. through the placement of approximately 8,200 cubic yards of fill material. An additional 1.3 acres of open waters of the U.S. will be converted to wetland habitat through the placement of 2,600 cubic yards of material. Temporary impacts include the temporary fill of 0.82 acre of wetland and the construction of cofferdams within the creek channel.

Mitigation: If the project is successful, it will be self-mitigating. The project will create 2.16 acre of jurisdictional wetlands. In addition, approximately 3.21 acres of other waters of the U.S. will be created.

The applicant will be required to monitor the project site for a minimum of 5 years to ensure that all project goals have been met. Contingency measures will be developed by the applicant should this not happen.

3. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act of 1969 (NEPA): The NPS will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations (40 C.F.R. Parts 1500-1508), and the Corps' Regulations (33 C.F.R. Part 230 and Part 325, Appendix B). Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 1455 Market Street, San Francisco, California 94103-1398.

Endangered Species Act of 1973 (ESA): Section 7 of the Endangered Species Act requires formal consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if a Corps permitted project may adversely affect any Federally listed threatened or endangered species or its designated critical habitat.

Species and critical habitat currently identified as potentially impacted by the proposed project include; endangered Central California Coast coho salmon (*Oncorhynchus kisutch*), threatened Central California Coast steelhead (*Oncorhynchus mykiss*), and threatened California red-legged frog (*Rana aurora draytonii*). A search of the California Natural Diversity Database (CNDDB) found sightings of coho salmon within the stretch of Redwood Creek that is within the project area.

The NPS will initiate consultation with the FWS and NOAA for the federally listed species above.

Magnuson-Stevens Fisheries Conservation and Management Act: The NMFS and several interagency fisheries councils have designated specific water bodies as Essential Fish Habitat (EFH) in accordance with the Magnuson-Stevens Fisheries Conservation and Management Act. The NPS will initiate consultation for potential adverse impacts to EFH.

Clean Water Act of 1972 (CWA):

a. Water Quality: Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must first obtain a State water quality certification before a Corps permit may be issued. The applicant has not provided the Corps with evidence that he has submitted a valid request for State water quality certification to the North Coast Regional Water Quality Control Board at this time. No Corps permit will be granted until the applicant obtains the required water quality certification. The Corps may assume a waiver of water quality certification if the State fails or refuses to act on a

valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issue that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403, by the close of the comment period of this Public Notice.

b. Alternatives: Evaluation of this proposed activity's impact includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b)(1) of the Clean Water Act (33 U.S.C. Section 1344(b)). An evaluation has been made by this office under the guidelines and it was determined that the proposed project is water dependent. The applicant has submitted an Analysis of Alternatives and has been informed that such an Analysis is required and will be reviewed for compliance with the guidelines.

National Historic Preservation Act of 1966 (NHPA): Based on a review of survey data on file with various City, State and Federal agencies, no historic or archeological resources are known to occur in the project vicinity. If unrecorded resources are discovered during construction of the project, operations will be suspended until the NPS completes consultation with the State Historic Preservation Office (SHPO) in accordance with Section 106 of the National Historic Preservation Act.

Coastal Zone Management Act of 1972 (CZMA): Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1456(c)), requires a Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to furnish a consistency determination that indicates the activity conforms with the State's coastal zone management program. Generally, no federal license or permit

will be issued until the appropriate State agency has concurred with the consistency determination or has waived its right to do so. The project does occur in the coastal zone, and a preliminary review by the Corps indicates that the project would likely affect coastal zone resources. This presumption on effect, however, remains subject to a final determination by the California Coastal Commission.

4. PUBLIC INTEREST EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits that reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including its cumulative effects. Among those factors are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

5. CONSIDERATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments

are also used to determine the need for a public hearing and to determine the overall public interest in the proposed activity.

6. SUBMISSION OF COMMENTS: Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name and the number and the date of this Public Notice, and should be forwarded so as to reach this office within the comment period specified on Page 1. Comments should be sent to the U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 1455 Market Street, San Francisco, California 94103-1398. It is the Corps' policy to forward any such comments that include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this Public Notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose name and address are indicated in the first paragraph of this Public Notice or by contacting Bryan Matsumoto of our office at telephone 415-503-6786 or E-mail: Bryan.T.Matsumoto@usace.army.mil. Details on any changes of a minor nature that are made in the final permit action will be provided upon request.

Wetland and Creek Restoration at Big Lagoon, Muir Beach, CA

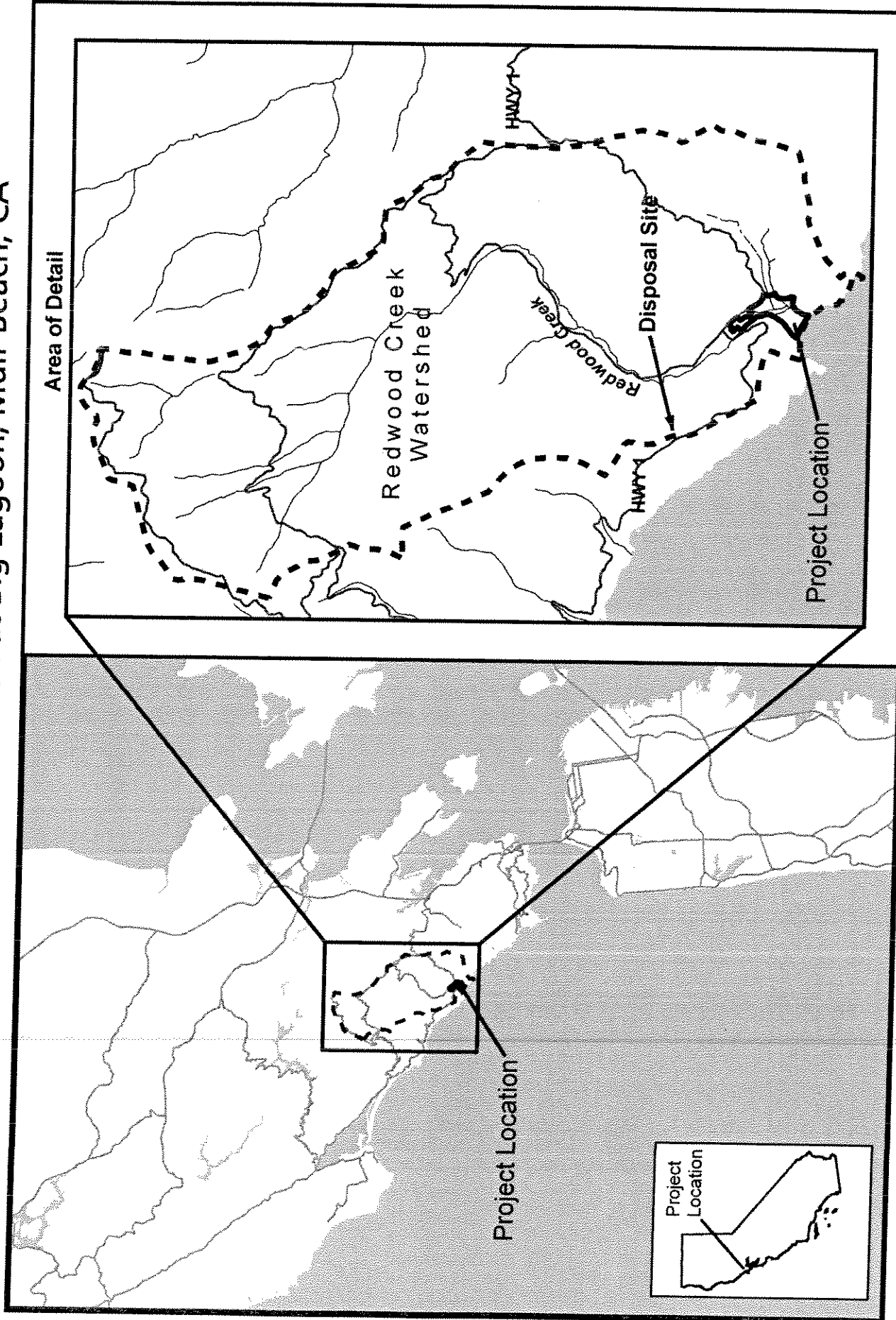


Figure 1: Project Location

Wetland and Creek Restoration at Big Lagoon, Muir Beach, CA

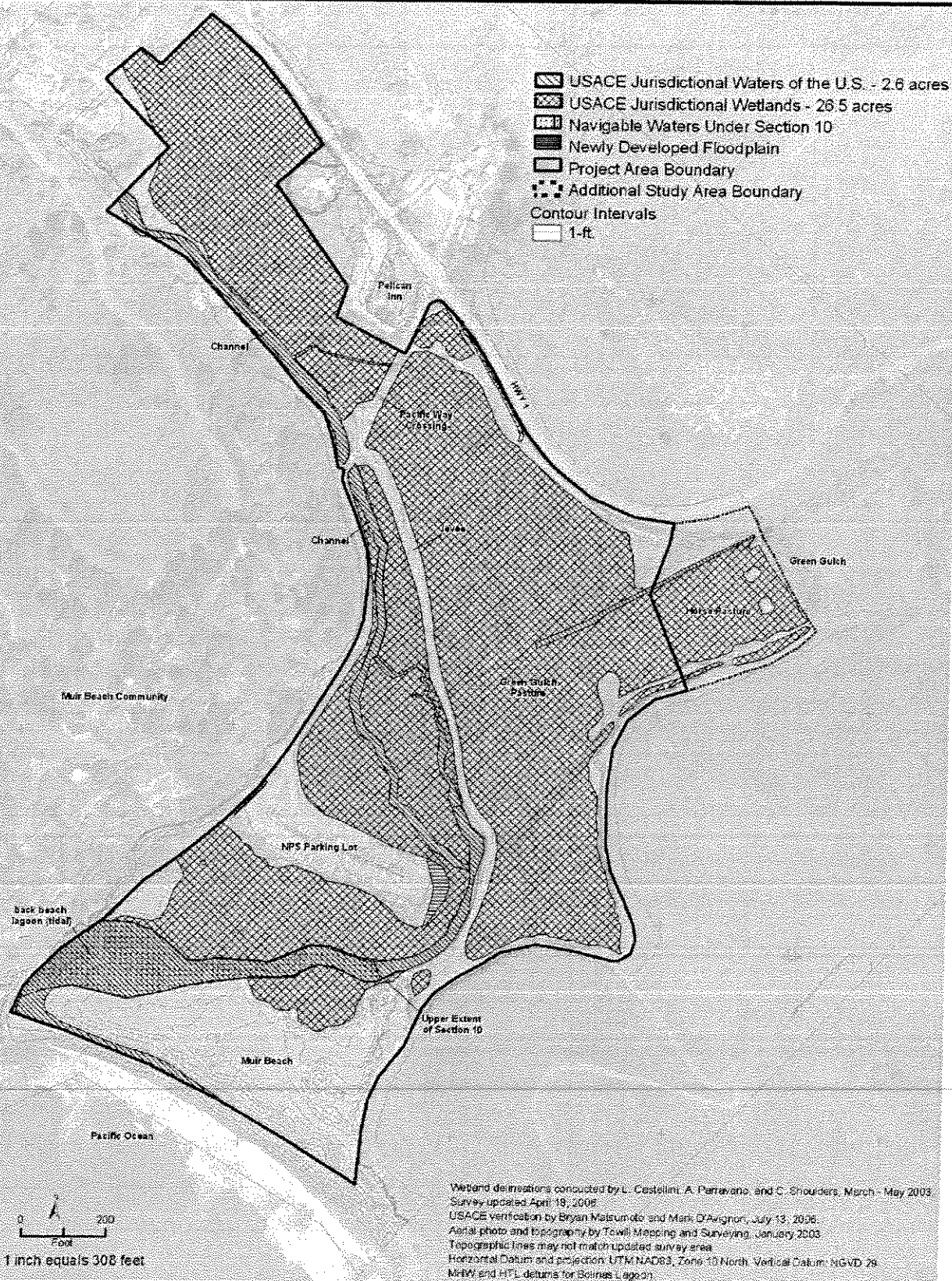
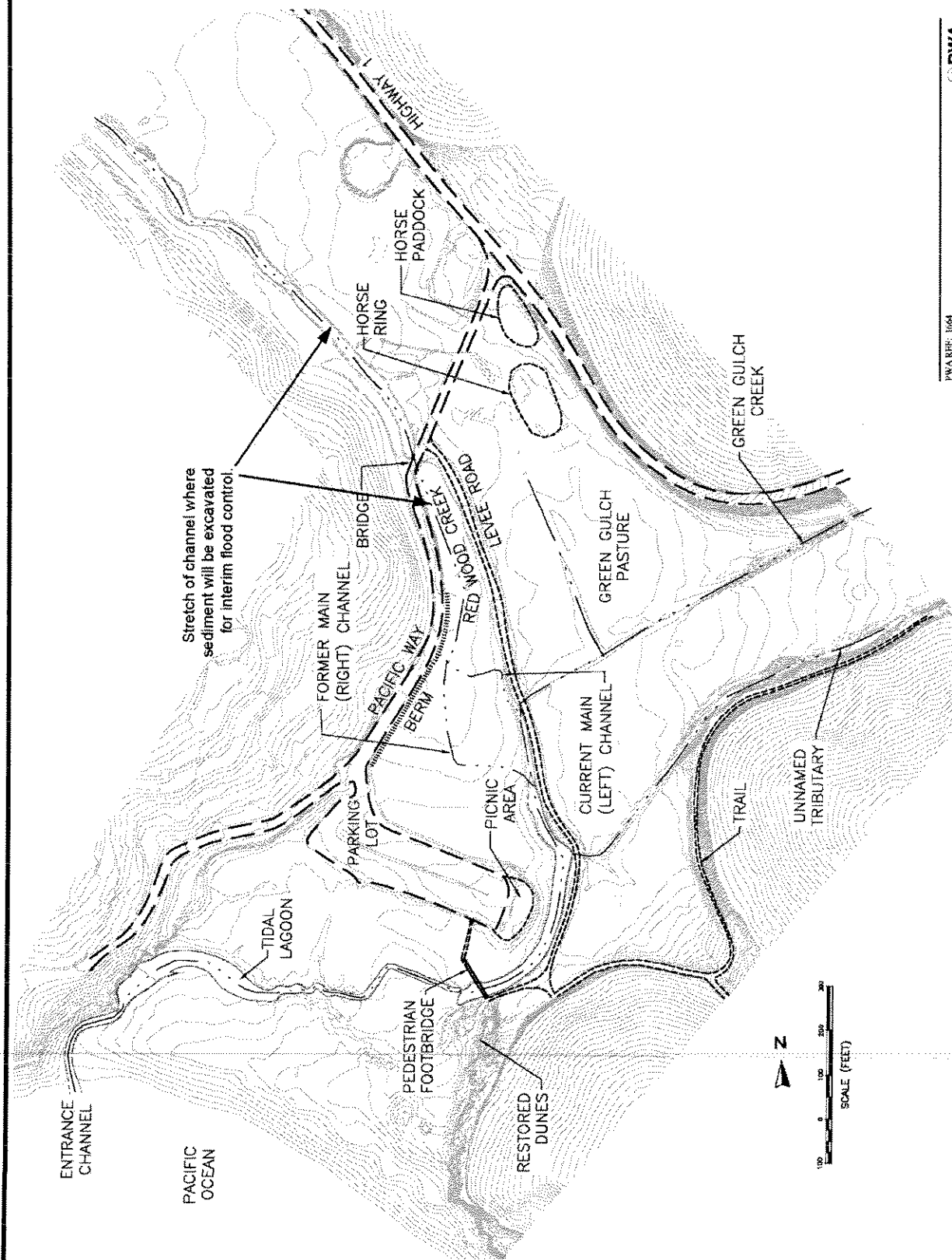


Figure 2 : Map of Jurisdictional Waters of the United States

Applicant: Golden Gate NRA
 Corps Project: 27394N

Wetland and Creek Restoration at Big Lagoon, Muir Beach, CA



PWA RFP: 1664 PWA

Applicant: Golden Gate NRA
Corps Project: 27394N

Figure 3 : Site Map - Existing Conditions

Wetland and Creek Restoration at Big Lagoon, Muir Beach, CA

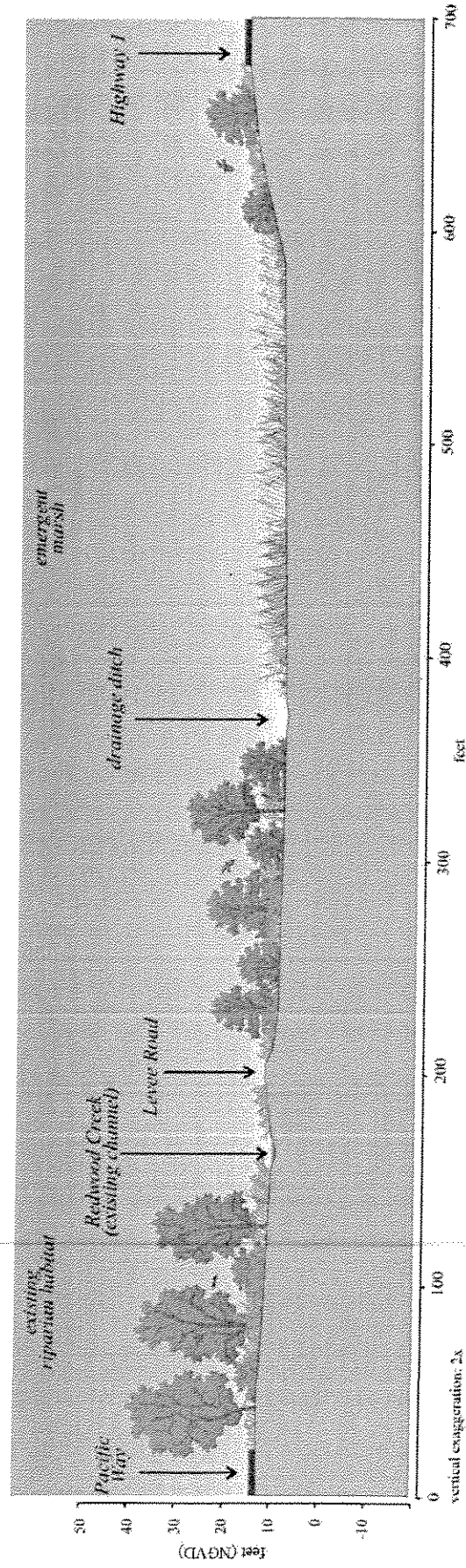


Figure 4 : Profile - Existing Conditions

Applicant: Golden Gate NRA
Corps Project: 27394N

Wetland and Creek Restoration at Big Lagoon, Muir Beach, CA

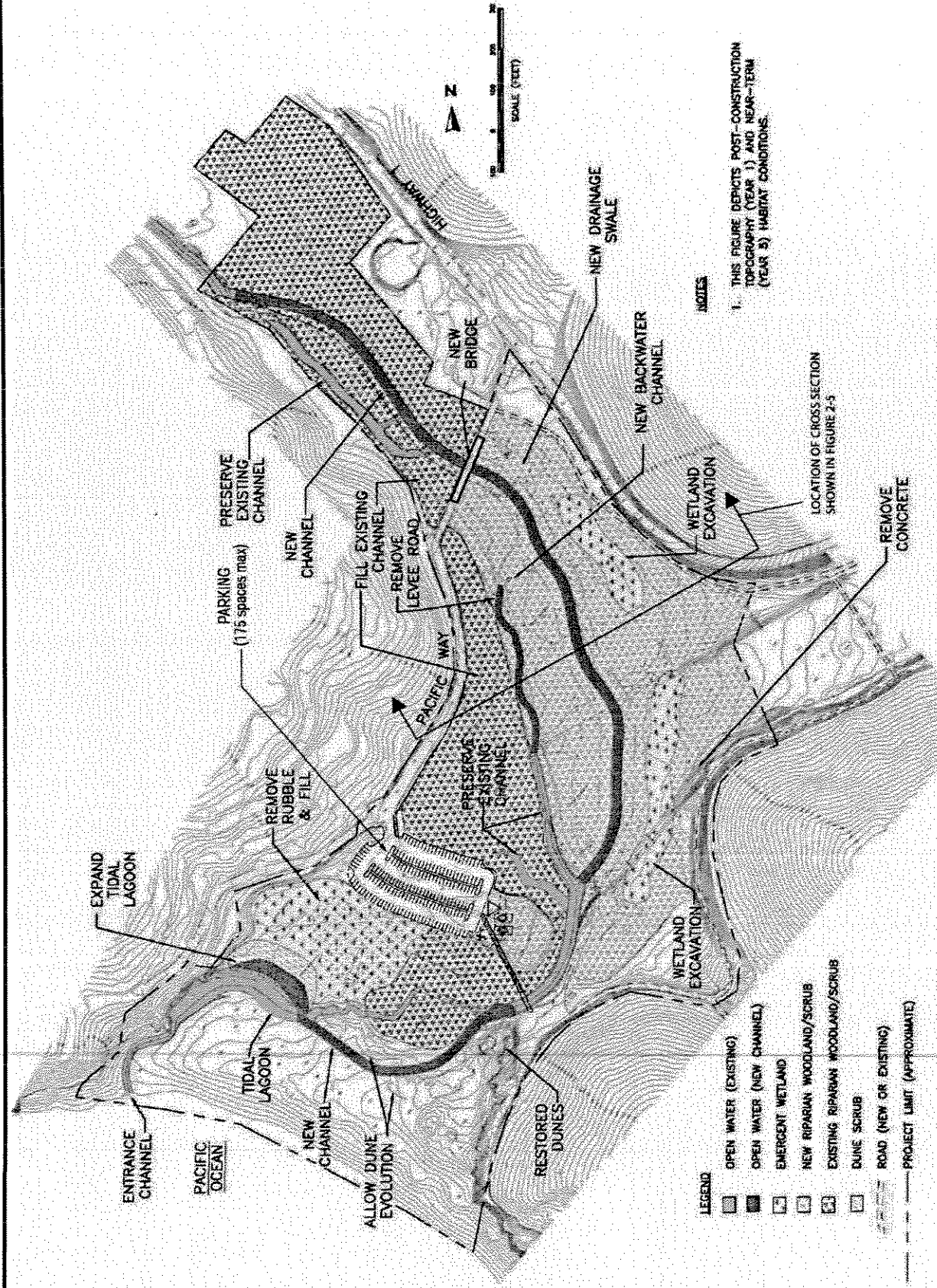
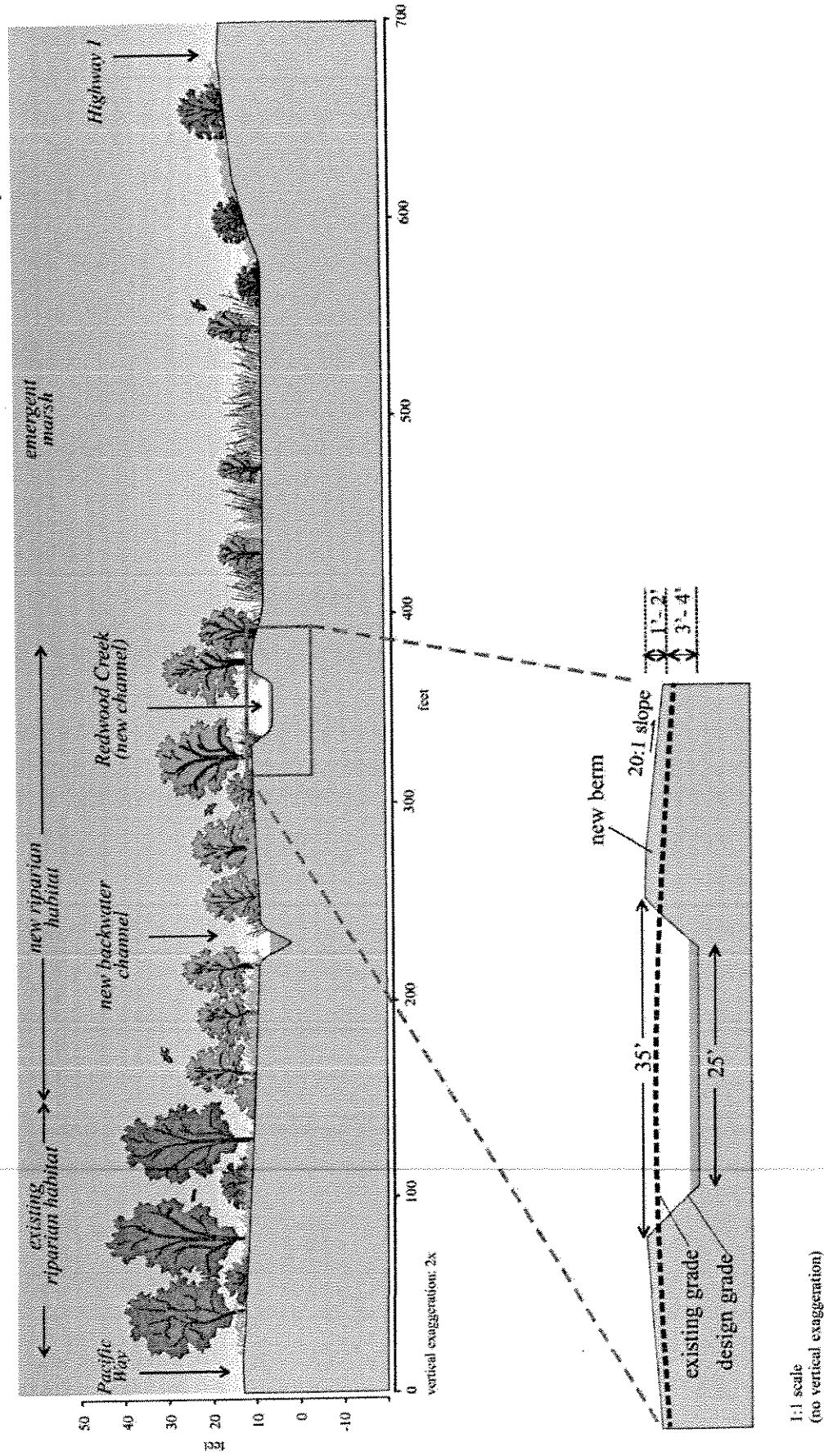


Figure 5 : Plan View - Proposed Conditions

Wetland and Creek Restoration at Big Lagoon, Muir Beach, CA



NOTE: The channel shown is over-simplified for purposes of this illustration. The channel bed would be expected to be irregular after installation of large woody debris to create channel features, such as deep pools.

Source: PWA 2006

Applicant: Golden Gate NRA
Corps Project: 27394N

Figure 6 : Profile - Proposed Conditions

This topographic map illustrates a proposed road improvement project in the Pelican Inn area. The map features contour lines indicating elevation, with labels such as 12.5, 12.6, 12.7, 12.8, 13.0, 13.2, 13.4, 13.6, 13.8, 14.0, 14.2, 14.4, 14.6, 14.8, 15.0, 15.2, 15.4, 15.6, 15.8, 16.0, 16.2, 16.4, 16.6, 16.8, 17.0, 17.2, 17.4, 17.6, 17.8, 18.0, 18.2, 18.4, 18.6, 18.8, 19.0, 19.2, 19.4, 19.6, 19.8, 20.0, 20.2, 20.4, 20.6, 20.8, 21.0, 21.2, 21.4, 21.6, 21.8, 22.0, 22.2, 22.4, 22.6, 22.8, 23.0, 23.2, 23.4, 23.6, 23.8, 24.0, 24.2, 24.4, 24.6, 24.8, 25.0, 25.2, 25.4, 25.6, 25.8, 26.0, 26.2, 26.4, 26.6, 26.8, 27.0, 27.2, 27.4, 27.6, 27.8, 28.0, 28.2, 28.4, 28.6, 28.8, 29.0, 29.2, 29.4, 29.6, 29.8, 30.0, 30.2, 30.4, 30.6, 30.8, 31.0, 31.2, 31.4, 31.6, 31.8, 32.0, 32.2, 32.4, 32.6, 32.8, 33.0, 33.2, 33.4, 33.6, 33.8, 34.0, 34.2, 34.4, 34.6, 34.8, 35.0, 35.2, 35.4, 35.6, 35.8, 36.0, 36.2, 36.4, 36.6, 36.8, 37.0, 37.2, 37.4, 37.6, 37.8, 38.0, 38.2, 38.4, 38.6, 38.8, 39.0, 39.2, 39.4, 39.6, 39.8, 40.0, 40.2, 40.4, 40.6, 40.8, 41.0, 41.2, 41.4, 41.6, 41.8, 42.0, 42.2, 42.4, 42.6, 42.8, 43.0, 43.2, 43.4, 43.6, 43.8, 44.0, 44.2, 44.4, 44.6, 44.8, 45.0, 45.2, 45.4, 45.6, 45.8, 46.0, 46.2, 46.4, 46.6, 46.8, 47.0, 47.2, 47.4, 47.6, 47.8, 48.0, 48.2, 48.4, 48.6, 48.8, 49.0, 49.2, 49.4, 49.6, 49.8, 50.0, 50.2, 50.4, 50.6, 50.8, 51.0, 51.2, 51.4, 51.6, 51.8, 52.0, 52.2, 52.4, 52.6, 52.8, 53.0, 53.2, 53.4, 53.6, 53.8, 54.0, 54.2, 54.4, 54.6, 54.8, 55.0, 55.2, 55.4, 55.6, 55.8, 56.0, 56.2, 56.4, 56.6, 56.8, 57.0, 57.2, 57.4, 57.6, 57.8, 58.0, 58.2, 58.4, 58.6, 58.8, 59.0, 59.2, 59.4, 59.6, 59.8, 60.0, 60.2, 60.4, 60.6, 60.8, 61.0, 61.2, 61.4, 61.6, 61.8, 62.0, 62.2, 62.4, 62.6, 62.8, 63.0, 63.2, 63.4, 63.6, 63.8, 64.0, 64.2, 64.4, 64.6, 64.8, 65.0, 65.2, 65.4, 65.6, 65.8, 66.0, 66.2, 66.4, 66.6, 66.8, 67.0, 67.2, 67.4, 67.6, 67.8, 68.0, 68.2, 68.4, 68.6, 68.8, 69.0, 69.2, 69.4, 69.6, 69.8, 70.0, 70.2, 70.4, 70.6, 70.8, 71.0, 71.2, 71.4, 71.6, 71.8, 72.0, 72.2, 72.4, 72.6, 72.8, 73.0, 73.2, 73.4, 73.6, 73.8, 74.0, 74.2, 74.4, 74.6, 74.8, 75.0, 75.2, 75.4, 75.6, 75.8, 76.0, 76.2, 76.4, 76.6, 76.8, 77.0, 77.2, 77.4, 77.6, 77.8, 78.0, 78.2, 78.4, 78.6, 78.8, 79.0, 79.2, 79.4, 79.6, 79.8, 80.0, 80.2, 80.4, 80.6, 80.8, 81.0, 81.2, 81.4, 81.6, 81.8, 82.0, 82.2, 82.4, 82.6, 82.8, 83.0, 83.2, 83.4, 83.6, 83.8, 84.0, 84.2, 84.4, 84.6, 84.8, 85.0, 85.2, 85.4, 85.6, 85.8, 86.0, 86.2, 86.4, 86.6, 86.8, 87.0, 87.2, 87.4, 87.6, 87.8, 88.0, 88.2, 88.4, 88.6, 88.8, 89.0, 89.2, 89.4, 89.6, 89.8, 90.0, 90.2, 90.4, 90.6, 90.8, 91.0, 91.2, 91.4, 91.6, 91.8, 92.0, 92.2, 92.4, 92.6, 92.8, 93.0, 93.2, 93.4, 93.6, 93.8, 94.0, 94.2, 94.4, 94.6, 94.8, 95.0, 95.2, 95.4, 95.6, 95.8, 96.0, 96.2, 96.4, 96.6, 96.8, 97.0, 97.2, 97.4, 97.6, 97.8, 98.0, 98.2, 98.4, 98.6, 98.8, 99.0, 99.2, 99.4, 99.6, 99.8, 100.0, 100.2, 100.4, 100.6, 100.8, 101.0, 101.2, 101.4, 101.6, 101.8, 102.0, 102.2, 102.4, 102.6, 102.8, 103.0, 103.2, 103.4, 103.6, 103.8, 104.0, 104.2, 104.4, 104.6, 104.8, 105.0, 105.2, 105.4, 105.6, 105.8, 106.0, 106.2, 106.4, 106.6, 106.8, 107.0, 107.2, 107.4, 107.6, 107.8, 108.0, 108.2, 108.4, 108.6, 108.8, 109.0, 109.2, 109.4, 109.6, 109.8, 110.0, 110.2, 110.4, 110.6, 110.8, 111.0, 111.2, 111.4, 111.6, 111.8, 112.0, 112.2, 112.4, 112.6, 112.8, 113.0, 113.2, 113.4, 113.6, 113.8, 114.0, 114.2, 114.4, 114.6, 114.8, 115.0, 115.2, 115.4, 115.6, 115.8, 116.0, 116.2, 116.4, 116.6, 116.8, 117.0, 117.2, 117.4, 117.6, 117.8, 118.0, 118.2, 118.4, 118.6, 118.8, 119.0, 119.2, 119.4, 119.6, 119.8, 120.0, 120.2, 120.4, 120.6, 120.8, 121.0, 121.2, 121.4, 121.6, 121.8, 122.0, 122.2, 122.4, 122.6, 122.8, 123.0, 123.2, 123.4, 123.6, 123.8, 124.0, 124.2, 124.4, 124.6, 124.8, 125.0, 125.2, 125.4, 125.6, 125.8, 126.0, 126.2, 126.4, 126.6, 126.8, 127.0, 127.2, 127.4, 127.6, 127.8, 128.0, 128.2, 128.4, 128.6, 128.8, 129.0, 129.2, 129.4, 129.6, 129.8, 130.0, 130.2, 130.4, 130.6, 130.8, 131.0, 131.2, 131.4, 131.6, 131.8, 132.0, 132.2, 132.4, 132.6, 132.8, 133.0, 133.2, 133.4, 133.6, 133.8, 134.0, 134.2, 134.4, 134.6, 134.8, 135.0, 135.2, 135.4, 135.6, 135.8, 136.0, 136.2, 136.4, 136.6, 136.8, 137.0, 137.2, 137.4, 137.6, 1

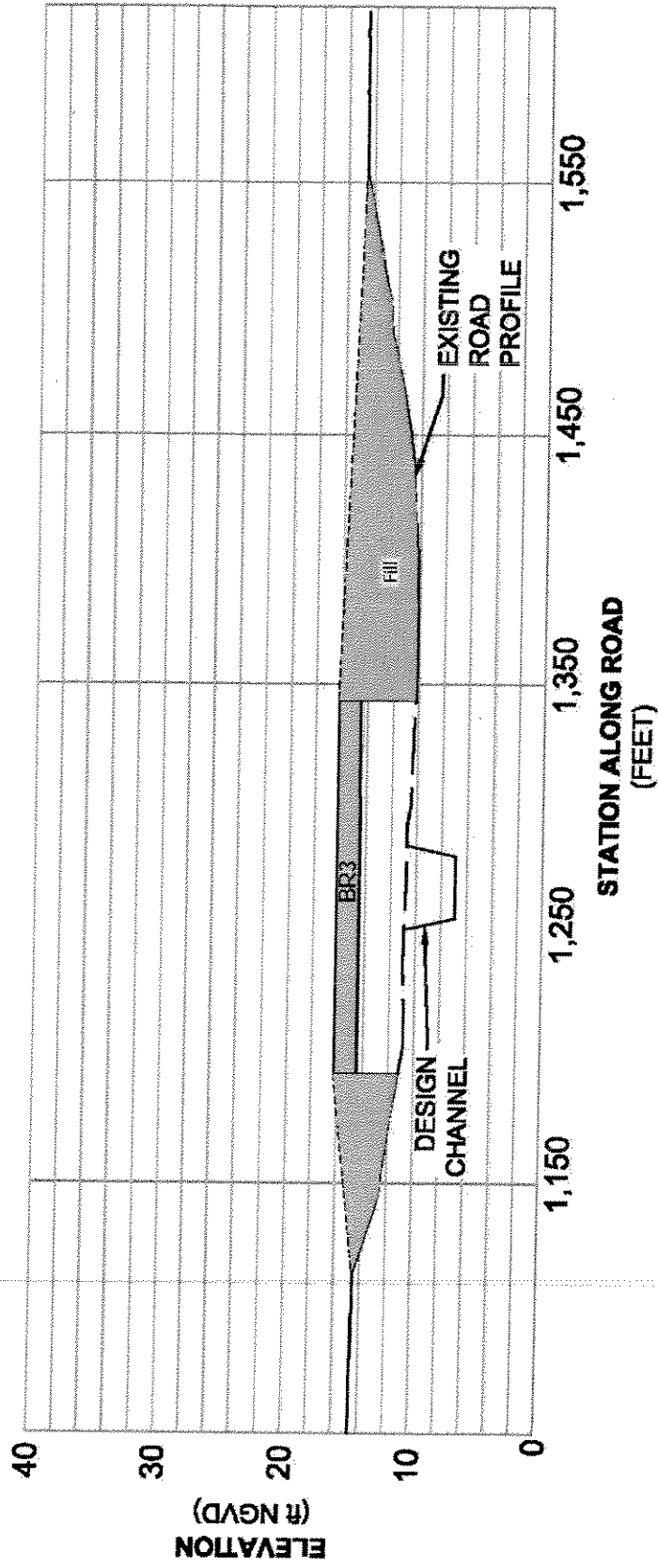
figure 43

Schematic Plan for 150' Span Bridge

Figure 7 : Schematic Plan for 150' Span Bridge

Applicant: Golden Gate NRA
Corps Project: 27394N

Wetland and Creek Restoration at Big Lagoon, Muir Beach, CA



Source: PWA 2006.

Figure 8 : Pacific Way Bridge Profile - Proposed